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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/744,393 | 03/05/2001 | Samuel W. D. Steel | 36-1553 | 5720 |
| 23117 | 7590 | 10/25/2006 | EXAMINER LE, MIRANDA | |
| NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203 | | | ART UNIT 2167 | |

DATE MAILED: 10/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/744,393

Applicant(s)

STEEL ET AL.

Examiner

Miranda Le

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to Amendment, filed 08/16/2006.
2. Claims 1-19 are pending in this application. Claim 11 is independent claims. In the Amendment, claim 11 has been amended; claims 2-5, 7-10 have been cancelled. This action is made Final.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11, 12, 15, 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Karten (US Patent No. 6,421,662).

Karten anticipated independent claims 1, 1, 31, 37 by the following:

As per claim 11, Karten teaches apparatus for accessing a semi-structured database in accordance with an input request for information, wherein the semi-structured database comprises a plurality of items, each item comprising one or more fields having a plurality of characters therein, at least one the fields being a free text field, the apparatus comprising:

means for accessing a data store comprising a plurality of index entries each representing a concordance between an entry in a field of an item and an item (*i.e. indexes for use in processing a query by selecting values as unique keys from one or more columns in a table in a relational database system. Each key corresponds to a row in the table, col. 3, lines 1-26; Figs. 3A-3C) (col. 13, line 24 to col. 14, line 44);*

input means for receiving a request for information, the request comprising a natural language phrase (*i.e. all males AND who are over the age of 35, AND who are married AND who have more than five offspring, AND who have blonde hair, col. 11, lines 40-67).*

a parser for parsing the request to determine component of the request (*i.e. The above search criteria can be broken into the following five search criteria: 1) All males; 2) all persons over age 35; 3) all persons who are married; 4) all persons who have more than five offspring, 5) all persons who have blonde hair, col. 11, lines 40-67);*

a slot filler arranged to identify one or more object components representing an object of the request from the parsed request, wherein each slot corresponds to a group of index entries and wherein the slot filler is arranged to allocate at least one component to a respective slot of a slot-and-filler request with a plurality of slots (*i.e. Each of the five search criteria is computed for each row of data, resulting in five status values per row, col. 11, lines 40-67); and*

a query constructor for accessing the data store, wherein the query constructor is arranged to compare the allocated component with index entries within a group corresponding to the slot of the allocated component so as to identify an index entry corresponding thereto, and to use the identified index entry to identify an item in the semi-structured database (*i.e. the row identified by key value <1999> satisfies statuses 1,4 and 5 but not statuses 2 and 3; Header key of the*

index entry; a SQL statement selecting all males with blonde hair and another SQL statement selecting all persons who are married, are blonde, and have more than five offspring, col. 12, line 1 to col. 13, line 20).

As per claim 12, Karten teaches an index generator comprising a processor arranged, in respect of each item in the semi-structured database, to analyze each field in accordance with a predetermined criterion so as to identify an entry within said field, and to generate at least one index entry representing a concordance between an identified entry and the item corresponding to the identified entry, and store the generated index entry in the data store (*col. 7, line 9 to col. 9, line 14; col. 12, line 1 to col. 13, line 20*);

wherein for each of a plurality of predetermined formats, the processor is arranged to search said free text field to identify a sequence of characters having a format corresponding to the predetermined format, said identified sequence of characters being deemed to constitute an identified entry (*col. 7, line 9 to col. 9, line 14; col. 12, line 1 to col. 13, line 20*).

As per claim 15, Karten teaches the items within the semi-structured database are further arranged in groups of items, each group being located in a heading field and being identified by at least one heading entry, wherein the processor is arranged to identify a heading entry by comparing each heading field with each of a plurality of selection criteria defining one or more predetermined characteristics of a respective heading entry, and is arranged to generate index entries representing a concordance between such heading entries and the group of items in the heading field (*Figs. 3A-3C; col. 13, line 24 to col. 14, line 44*).

As per claim 19, Karten teaches the data store is part of the apparatus (*Figs. 3A-3C; col. 13, line 24 to col. 14, line 44*).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura Karten (US Patent No. 6,421,662), in view of Kravets et al. (US Patent No. 6,363,377).

As per claim 13, Karten does not specifically teach for the free text field, the processor is arranged to define any data not identified as an entry as a free text entry.

However, Kravets teaches the free text field, the processor is arranged to define any data not identified as an entry as a free text entry (*i.e. any text 906, Fig. 9A*).

It would have been obvious to one of ordinary skill of the art having the teaching of Karten and Kravets at the time the invention was made to modify the system of Karten to include the above limitations as taught by Kravets.

One of ordinary skill in the art would be motivated to make this combination in order to allow any text to be searched in view of Kravets (*col. 11, lines 1-14*), as doing so would give the added benefit of refining and improving search queries and for organizing the results of a search query by different and overlapping criteria as taught by Kravets (*col. 1, lines 8-17*).

As per claim 14, Kravets teaches the free text entry comprises at least one free text word defined by a sequence of alphanumeric characters, the processor being arranged to identify at least one selected free text word for a field by comparing the free text entry with at least one selection criterion defining one or more predetermined characteristics of a selected free text word (*col. 7, lines 1-65*).

7. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura Karten (US Patent No. 6,421,662), in view of Paik et al. (US Patent No. 6,076,088).

As per claim 16, Karten does not explicitly teach the slot filler is arranged to identify verb components forming a verb or verb group in the parsed request and to allocate any such identified verb components to a slot in accordance with a predetermined mapping between verb components and slots.

However, Paik teaches the slot filler is arranged to identify verb components forming a verb or verb group in the parsed request and to allocate any such identified verb components to a slot in accordance with a predetermined mapping between verb components and slots (*col. 12, line 31 to col. 13, line 26*).

It would have been obvious to one of ordinary skill of the art having the teaching of Karten and Paik at the time the invention was made to modify the system of Karten to include the above limitations as taught by Paik.

One of ordinary skill in the art would be motivated to make this combination in order to determine the idiomatic meaning in view of Paik (*col. 12, lines 57-64*), as doing so would give the added benefit of extracting information from text about any concept and its relations to any other concepts within that text as taught by Paik (*col. 3, line 58 to col. 4, line 4*).

As per claim 17, Paik teaches the slot filler is arranged to identify any subject components in accordance with the position of the verb or verb group within the request and to allocate any such identified subject components to a slot in accordance with a predetermined mapping between subject components and slots (*col. 12, line 31 to col. 13, line 26; col. 17, line 60 to col. 18, line 61; col. 21, lines 35-62*).

As per claim 18, Paik teaches in the absence of identifying verb components, the slot filler is arranged to deem any components to be object components (*col. 12, line 31 to col. 13, line 26; col. 17, line 60 to col. 18, line 61; col. 21, lines 35-62*).

Response to Arguments

8. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

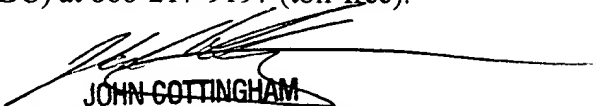
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is (571)-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Miranda Le
October 18, 2006


JOHN COTTINGHAM
SUPERVISORY PATENT EXAMINER
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